

RECEIVED

Page 1 of 8

JUN 19 2003

TECH CENTER



1600

RAW SEQUENCE LISTING

DATE: 06/16/2003

PATENT APPLICATION: US/09/911,777A

TIME: 09:14:47

Input Set : A:\82010024.app

Output Set: N:\CRF4\06162003\I911777A.raw

3 <110> APPLICANT: BROWNING, JEFFREY
4 AMBROSE, CHRISTINE
5 MACKAY, FABIENNE
6 TSCHOPP, JURG
7 SCHNEIDER, PASCAL
9 <120> TITLE OF INVENTION: BAFF, INHIBITORS THEREOF AND THEIR USE IN THE
10 MODULATION OF B-CELL RESPONSE
12 <130> FILE REFERENCE: 08201.0024-00000
14 <140> CURRENT APPLICATION NUMBER: 09/911,777A
15 <141> CURRENT FILING DATE: 2001-07-24
17 <150> PRIOR APPLICATION NUMBER: 60/143,228
18 <151> PRIOR FILING DATE: 2001-07-09
20 <150> PRIOR APPLICATION NUMBER: PCT/US00/01788
21 <151> PRIOR FILING DATE: 2000-01-25
23 <150> PRIOR APPLICATION NUMBER: 60/117,169
24 <151> PRIOR FILING DATE: 1999-01-25
26 <160> NUMBER OF SEQ ID NOS: 26
28 <170> SOFTWARE: PatentIn Ver. 2.1
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 218
32 <212> TYPE: PRT
33 <213> ORGANISM: Homo sapiens
35 <400> SEQUENCE: 1
36 Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu
37 1 5 10 15
39 Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro
40 20 25 30
42 Arg Lys Glu Ser Pro Ser Val Leu Leu Ser Cys Cys Leu Thr Val Val
43 35 40 45
45 Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg
46 50 55 60
48 Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Lys
49 65 70 75 80
51 Ile Phe Glu Pro Pro Ala Pro Gly Glu Gly Asn Ser Ser Gln Asn Ser
52 85 90 95
54 Arg Asn Lys Arg Ala Val Gln Gly Pro Glu Glu Thr Val Thr Gln Asp
55 100 105 110
57 Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly
58 115 120 125
60 Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala
61 130 135 140
63 Leu Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His
64 145 150 155 160

P6

ENTERED

RAW SEQUENCE LISTING

DATE: 06/16/2003

PATENT APPLICATION: US/09/911,777A

TIME: 09:14:47

Input Set : A:\82010024.app

Output Set: N:\CRF4\06162003\I911777A.raw

```

66 Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu
67      165      170      175
69 Val Thr Leu Phe Arg Cys Ile Gln Asn Leu Glu Glu Gly Asp Glu Leu
70      180      185      190
72 Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Leu Asp Gly Asp
73      195      200      205
75 Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
76      210      215
79 <210> SEQ ID NO: 2
80 <211> LENGTH: 232
81 <212> TYPE: PRT
82 <213> ORGANISM: Mus sp.
84 <400> SEQUENCE: 2
85 Met Asp Glu Ser Ala Lys Thr Leu Pro Pro Pro Cys Leu Cys Phe Cys
86  1      5      10      15
88 Ser Glu Lys Gly Glu Asp Met Lys Val Gly Tyr Asp Pro Ile Thr Pro
89      20      25      30
91 Gln Lys Glu Glu Gly Ala Val Leu Leu Ser Ser Ser Phe Thr Ala Met
92      35      40      45
94 Ser Leu Tyr Gln Leu Ala Ala Leu Gln Ala Asp Leu Met Asn Leu Arg
95      50      55      60
97 Met Glu Leu Gln Ser Tyr Arg Gly Ser Ala Thr Pro Ala Ala Ala Lys
98  65      70      75      80
100 Leu Leu Thr Pro Ala Ala Pro Arg Pro His Asn Ser Ser Arg Gly His
101      85      90      95
103 Arg Asn Arg Arg Ala Phe Pro Gly Pro Glu Glu Thr Glu Gln Asp Val
104      100      105      110
106 Asp Leu Ser Ala Pro Pro Ala Leu Arg Asn Ile Ile Gln Asp Cys Leu
107      115      120      125
109 Gln Leu Ile Ala Asp Ser Asp Thr Pro Thr Ile Arg Lys Gly Thr Tyr
110      130      135      140
112 Thr Phe Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Asn Ala Leu Tyr
113 145      150      155      160
115 Ser Gln Val Leu Tyr Thr Asp Pro Ile Phe Ala Met Gly His Val Ile
116      165      170      175
118 Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser Leu Val Thr
119      180      185      190
121 Leu Phe Arg Cys Ile Gln Asn Leu Glu Glu Gly Asp Glu Ile Gln Leu
122      195      200      205
124 Ala Ile Pro Arg Glu Asn Ala Gln Ile Ser Arg Asn Gly Asp Asp Thr
125      210      215      220
127 Phe Phe Gly Ala Leu Lys Leu Leu
128 225      230
131 <210> SEQ ID NO: 3
132 <211> LENGTH: 102
133 <212> TYPE: PRT
134 <213> ORGANISM: Homo sapiens
136 <400> SEQUENCE: 3
137 Val Thr Gln Asp Cys Leu Gln Leu Ile Ala Asp Ser Glu Thr Pro Thr

```

RAW SEQUENCE LISTING

DATE: 06/16/2003

PATENT APPLICATION: US/09/911,777A

TIME: 09:14:47

Input Set : A:\82010024.app

Output Set: N:\CRF4\06162003\I911777A.raw

```

138      1              5              10              15
140 Ile Gln Lys Gly Ser Tyr Thr Phe Val Pro Trp Leu Leu Ser Phe Lys
141              20              25              30
143 Arg Gly Ser Ala Leu Glu Glu Lys Tyr Gly Gln Val Leu Tyr Thr Asp
144              35              40              45
146 Lys Thr Tyr Ala Met Gly His Leu Ile Gln Arg Lys Lys Val His Val
147              50              55              60
149 Phe Gly Asp Glu Leu Ser Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala
150      65              70              75              80
152 Lys Leu Glu Glu Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn
153              85              90              95
155 Ala Gln Ile Ser Leu Asp
156              100
159 <210> SEQ ID NO: 4
160 <211> LENGTH: 96
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo sapiens
164 <400> SEQUENCE: 4
165 Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys
166      1              5              10              15
168 Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg
169              20              25              30
171 Gly Arg Gly Leu Gln Ala Gln Tyr Ser Gln Val Leu Phe Gln Asp Val
172              35              40              45
174 Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Ala
175              50              55              60
177 Tyr Asn Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp
178      65              70              75              80
180 Ile Leu Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser
181              85              90              95
184 <210> SEQ ID NO: 5
185 <211> LENGTH: 104
186 <212> TYPE: PRT
187 <213> ORGANISM: Homo sapiens
189 <400> SEQUENCE: 5
190 Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro Gln Ala Glu Gly
191      1              5              10              15
193 Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu Leu Ala Asn Gly
194              20              25              30
196 Val Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly Cys Pro Ser Thr His
197              35              40              45
199 Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala Val Ser Tyr Gln Thr
200              50              55              60
202 Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu Pro Ile Tyr Leu Gly Gly
203      65              70              75              80
205 Val Phe Gln Leu Glu Lys Gly Asp Arg Leu Ser Ala Glu Ile Asn Arg
206              85              90              95
208 Pro Asp Tyr Leu Asp Phe Ala Glu
209              100

```

RAW SEQUENCE LISTING

DATE: 06/16/2003

PATENT APPLICATION: US/09/911,777A

TIME: 09:14:47

Input Set : A:\82010024.app

Output Set: N:\CRF4\06162003\I911777A.raw

```

212 <210> SEQ ID NO: 6
213 <211> LENGTH: 97
214 <212> TYPE: PRT
215 <213> ORGANISM: Homo sapiens
217 <400> SEQUENCE: 6
218 Glu Leu Arg Lys Val Ala His Leu Thr Gly Lys Ser Asn Ser Arg Ser
219   1                               5               10               15
221 Met Pro Leu Glu Trp Glu Asp Thr Tyr Gly Ile Val Leu Leu Ser Gly
222                               20               25               30
224 Val Lys Tyr Ser Lys Val Tyr Phe Arg Gly Gln Ser Cys Asn Asn Leu
225   35                               40               45
227 Pro Leu Ser His Lys Val Tyr Met Arg Asn Ser Lys Tyr Pro Gln Met
228   50                               55               60
230 Trp Ala Arg Ser Ser Tyr Leu Gly Ala Val Phe Asn Leu Thr Ser Ala
231  65                               70               75               80
233 Asp His Leu Tyr Val Asn Val Ser Glu Leu Ser Leu Val Asn Phe Glu
234                               85               90               95
236 Glu
239 <210> SEQ ID NO: 7
240 <211> LENGTH: 102
241 <212> TYPE: PRT
242 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 7
245 Thr Leu Lys Pro Ala Ala His Leu Ile Gly Asp Pro Ser Lys Gln Asn
246   1                               5               10               15
248 Ser Leu Leu Trp Arg Ala Asn Thr Asp Arg Ala Phe Leu Gln Asp Gly
249   20                               25               30
251 Phe Tyr Ser Gln Val Val Phe Ser Gly Lys Ala Tyr Ser Pro Lys Ala
252   35                               40               45
254 Thr Ser Ser Pro Leu Tyr Leu Ala His Glu Val Gln Leu Phe Ser Ser
255   50                               55               60
257 Gln Tyr Pro Phe Pro Trp Leu His Ser Met Tyr His Gly Ala Ala Phe
258  65                               70               75               80
260 Gln Leu Thr Gln Gly Asp Gln Leu Ser Thr His Thr Asp Gly Ile Pro
261   85                               90               95
263 His Leu Val Leu Ser Phe
264   100
267 <210> SEQ ID NO: 8
268 <211> LENGTH: 109
269 <212> TYPE: PRT
270 <213> ORGANISM: Homo sapiens
272 <400> SEQUENCE: 8
273 Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr Asp Ile Pro
274   1                               5               10               15
276 Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His Asp Arg Gly
277   20                               25               30
279 Trp Gly Lys Ile Ser Asn Met Tyr Ala Asn Ile Cys Phe Arg His His
280   35                               40               45
282 Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln Leu Met Val Tyr

```

RAW SEQUENCE LISTING

DATE: 06/16/2003

PATENT APPLICATION: US/09/911,777A

TIME: 09:14:47

Input Set : A:\82010024.app

Output Set: N:\CRF4\06162003\I911777A.raw

```

283      50      55      60
285 Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Glu Phe His Phe Tyr Ser
286 65      70      75      80
288 Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser Gly Glu Glu Ile Ser
289      85      90      95
291 Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro Asp Gln
292      100      105
295 <210> SEQ ID NO: 9
296 <211> LENGTH: 26
297 <212> TYPE: DNA
298 <213> ORGANISM: Homo sapiens
300 <400> SEQUENCE: 9
301 actgtttctt ctggaccctg aacggc 26
304 <210> SEQ ID NO: 10
305 <211> LENGTH: 30
306 <212> TYPE: DNA
307 <213> ORGANISM: Homo sapiens
309 <400> SEQUENCE: 10
310 gacaagcttg ccaccatgga tgactccaca 30
313 <210> SEQ ID NO: 11
314 <211> LENGTH: 23
315 <212> TYPE: DNA
316 <213> ORGANISM: Homo sapiens
318 <400> SEQUENCE: 11
319 actagtcaca gcagtttcaa tgc 23
322 <210> SEQ ID NO: 12
323 <211> LENGTH: 22
324 <212> TYPE: DNA
325 <213> ORGANISM: Homo sapiens
327 <400> SEQUENCE: 12
328 ctgcagggtc cagaagaaac ag 22
331 <210> SEQ ID NO: 13
332 <211> LENGTH: 24
333 <212> TYPE: DNA
334 <213> ORGANISM: Homo sapiens
336 <400> SEQUENCE: 13
337 ggagaaggca actccagtca gaac 24
340 <210> SEQ ID NO: 14
341 <211> LENGTH: 24
342 <212> TYPE: DNA
343 <213> ORGANISM: Homo sapiens
345 <400> SEQUENCE: 14
346 caattcatcc ccaaagacat ggac 24
349 <210> SEQ ID NO: 15
350 <211> LENGTH: 22
351 <212> TYPE: DNA
352 <213> ORGANISM: Homo sapiens
354 <400> SEQUENCE: 15
355 tcggaacaca acgaaacaag tc 22

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/16/2003
PATENT APPLICATION: US/09/911,777A TIME: 09:14:48

Input Set : A:\82010024.app
Output Set: N:\CRF4\06162003\I911777A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:26; Xaa Pos. 2,3